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Summary record of the joint meeting of the Second Committee and the Economic and Social Council on "The Circular Economy for the Sustainable Development goals: From Concept to Practice"

Held at Headquarters, New York, on Wednesday, 10 October 2018, at 3 p.m.

Co-Chair: Mr. Skinner-Klée Arenales (Chair, Second Committee) ..... (Guatemala)
Co-Chair: Ms. King (President, Economic and Social Council) ..... (Saint Vincent and the Grenadines)

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The meeting was called to order at 3.10 p.m.

Opening statements

1. **Ms. King** (Co-Chair) said that the joint meeting would focus on the shift away from a linear economy of "take, make, consume and throw away" towards a circular economy. At the heart of a circular economy was the idea of waste redefined and new business models and product designs. The focus of the event was particularly relevant and built on discussions held during the high-level political forum on sustainable development in July 2018, especially the in-depth review of Sustainable Development Goal 12 on sustainable consumption and production.

2. A growing population was committed to making a shift in patterns of production and consumption, a structural change that was necessary to accelerate the implementation of the 2030 Agenda for Sustainable Development for a more sustainable and just world. The world would have one billion more inhabitants by 2030, with a concomitant drastic increase in the demand for natural resources and raw materials. Meanwhile, domestic consumption was steadily increasing worldwide in both developing and developed countries. Humanity was using up the resources of the world at a rate 1.7 times faster than its ecosystems could regenerate. However, through joint action, it would be possible to transition away from an economic model that put the planet and future at risk.

3. German economist E.F. Schumacher had maintained decades ago that humanity needed a lifestyle designed for permanence, warning against the sense that humans were separate from nature and must battle and conquer it. If humans won that battle, they would find themselves on the losing side. Astonishing scientific and technological achievements had given humanity the illusion of unlimited powers with a concurrent illusion of having solved the problem of production. That illusion was based on a confusion between the concepts of income and capital. The capital that was not made by man, but merely found, was irreplaceable. Without it, man could do nothing. The modern industrial system consumed the very basis on which it had been built, treating capital as income.

4. The circular economy model endeavoured to change mindsets and went far beyond the achievement of Sustainable Goal 12, extending to Sustainable Goal 7 on affordable and clean energy, Goal 8 on decent work and economic growth, Goal 11 on sustainable cities and communities, Goal 13 on climate action, Goal 14 on oceans and Goal 15 on life on land. That model promised vast economic opportunities, including the creation of additional revenue from existing products and processes and the potential to spur innovation and reduce operating costs.

5. The first panel discussion would focus on the policies, platforms and partnerships necessary to enable the shift towards a circular economy. As the related global movement gained momentum, there were important opportunities ahead to highlight tangible solutions in support of the transition away from unsustainable economic models.

6. When the high-level political forum was convened in September 2019 under the auspices of the General Assembly, Heads of State and Government would meet again to discuss innovative solutions and reaffirm their commitment to the implementation of the 2030 Agenda. The circular economy must be an integral part of those discussions and experiences, and best practices must be shared to accelerate the change that was so urgently needed.

7. **Mr. Skinner-Klée Arenales** (Co-Chair) said that recent decades had seen unprecedented growth in the demand for resources, driven by the rapid industrialization of emerging economies and continued high levels of material consumption in developed countries. World population was set to exceed 9 billion by 2050, further straining that demand. The current linear economic system led to environmental degradation, resource depletion, waste and pollution, and extreme inequality. A smart, cross-sectoral economic system with attractive opportunities for sustainable, socially equitable growth was required.

8. To implement the Sustainable Development Goals, it would be necessary to harness synergies and complementarities and consider potential trade-offs. The circular economy built synergy and could solve local and global overconsumption challenges, create jobs and solve problems, including health and sanitation problems, in developing countries. The greening of production, resource efficiency, energy transitions and the promotion of multilateral environmental agreements would foster environmentally sustainable growth.

9. Shifting to a circular economy could also advance poverty eradication and inclusiveness by building productive capacity and increasing opportunities for all. The transition would involve interaction between sectors and countries in parallel with technology trends like digitalization and automation. Both positive and negative interactions must be considered to prepare relevant responses.

10. Current patterns of consumption and production threatened the well-being of future generations and the

achievement of the Sustainable Development Goals. On a planet of finite resources, the transition to a circular economy was imperative and represented an unprecedented opportunity for growth and prosperity.

11. **Mr. Thomson** (United Nations Special Envoy for the Ocean), speaking via video link, said that the elevation of the subject at hand so early in the General Assembly session was commendable. Embedding the principles of the circular economy into consumption and production regimes would be the key transition required for the implementation of the 2030 Agenda for Sustainable Development. The linear economy model was simply not sustainable on a planet with finite resources that would eventually be exhausted.

12. The use of land and sea as dumping grounds for the vast waste produced by the linear model was polluting the very fundament of the environment that sustained life. The extent of that pollution was already exhibiting major negative implications for the well-being of humanity. In his role as the United Nations Special Envoy for the Oceans, he was confronted with the consequences of the linear economy every day, particularly in the form of marine plastic pollution, which had reached unconscionable levels. Ending the plague of plastic pollution would require a massive and collective global effort.

13. Solutions existed — one prominent one was the circular economy. Plastic was a wonder product of human ingenuity and would be in use for many generations to come. However, that plastic must be the right kind: truly recyclable and/or truly biodegradable. It must be put to the right uses. Humanity must urgently end its irresponsible addiction to single-use plastic. Governments, cities and communities taking the lead in that regard were to be commended.

14. The replacement of linear economy models by circular economy models was under positive discussion in the cabinets of Governments and the boardrooms of companies. It was timely for the Second Committee and the Economic and Social Council to focus their ideas, resources and energy on the advancement of the circular economy, a logical approach to humanity's interaction with the limited resources of planet Earth.

Panel discussion on Theme 1: "Policies and platforms supporting the transition to a circular economy"

15. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance), moderator, said that he had travelled to the meeting from his farm in Vermont. If he could have brought a prop, it would have been the horse manure from his farm, because schoolchildren visiting the farm were always fascinated by the mushrooms growing from it. Those mushrooms killed bacteria and could be useful to scientists in fighting off superbugs, a great example of designing out pollution and using waste for benefit. Humanity needed to come to terms with its waste. At the Black Rock Forest Consortium, waste from composting toilets was used to grow plants and flowers. Both were great examples of the circular economy.

16. Most people were not yet familiar with the concept of the circular economy. Simple and efficient communication to the public would be important. The three-point definition of the MacArthur Foundation was very accessible: design out waste and pollution; keep products and materials in use; and regenerate natural systems.

17. Health and economic benefits were the message being used to promote tap water over bottled water and air dryers over paper towels. Those choices had environmental and ethical benefits as well, but health and economic benefits were being touted first and foremost.

18. According to the Special Report on Global Warming of 1.5°C by the Intergovernmental Panel on Climate Change, only 12 years remained to address climate change and create a more sustainable world. Greenhouse gas emissions must be halved from 2010 levels; renewable energy must be tripled. The task was urgent, dire and monumental. Both people in the street and celebrities had taken notice of the warnings in the report. The situation was now resonating with the public. That was also the purpose of the joint Second Committee/Economic and Social Council meeting.

19. There were myriad ways to fix the problems ahead by 2030. Carbon Neutral Cities Alliance was at the vanguard of climate leadership among cities globally and had released a report entitled Game Changers: Bold Actions by Cities to Accelerate Progress Toward Carbon Neutrality, on the seven ways cities could change the game systematically and structurally. Paul Hawken had also been a pioneer in thinking on the circular economy with his book *Project Drawdown*, so those ideas were familiar. People knew they had to reduce meat consumption, eschew fast fashion and reduce family sizes. The question was how to engage civil society and promote the required behavioural and cultural changes. It had to be cool to reuse clothing, have only one pair of dress shoes, eat a primarily plant-based diet and use public transit. People were self-centred; however, they had been convinced to use tap water and air dryers for their hands with the promise of being healthier, saving money and saving time. In promoting the circular

economy and encouraging people to reduce, reuse and recycle, and regenerate natural systems, it would be helpful to focus on health and economics and sometimes, security. He invited the panellists to make their presentations.

20. **Mr. de Cuba** (Founder, Circular Economy Platform of the Americas and Circular Economy Forum of the Americas), panellist, accompanying his statement with a digital slide presentation, said that there were many definitions of the circular economy. When the Ellen MacArthur Foundation began popularizing the term, there had been a merging of schools of thought to find a coherent definition. Natural capitalism, cradle-to-cradle design, biomimicry and regenerative design were among the seven schools of thought that were fundamental to the circular economy. A new, coherent definition of the circular economy must now be established to achieve concerted action and results in the public sector, private sector, academia and civil society.

21. The main purpose of the Circular Economy Platform of the Americas and Circular Economy Forum of the Americas, comprising 35 experts, was to strengthen regional capacities and understand local conditions and needs to find the most pragmatic way to implement solutions compatible with the circular economy. Catching up to European universities, many universities in the Americas had begun designing programmes for related specializations. The focus of the group was to build awareness of the value of the circular economy for regions and individuals in specific economic sectors. The Circular Economy Forum of the Americas was the main event organized for that purpose; efforts were under way to make it the centre of excellence for pioneers, believers and practitioners to meet, exchange knowledge, and leverage and bring about new ideas and programmes with a common definition of the circular economy. He extended an invitation to all to join the Circular Economy Forum of the Americas in November 2018 in Santiago de Chile to participate in the ongoing regional dialogue.

22. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) asked what the biggest policy barriers were in the Americas and how they were being confronted.

23. **Mr. de Cuba** (Founder, Circular Economy Platform of the Americas and Circular Economy Forum of the Americas) said that he had worked for the Organization of American States for seven years and under its auspices, had led Closed Looped Cycle Production in the Americas, the first regional programme on applying circular economy thinking. From a technical point of view, raw materials were being assessed and proper design was being implemented to ensure that new products could be recuperated cost-effectively, and that the old products could be broken down, effectively recycled and reinserted into production systems. It was notable that the circular economy was capturing much more attention within ministries of the economy, industry and production than ministries of the environment. The former saw the circular economy as an opportunity for improved productivity, positioning, competitiveness and innovation.

24. However, many people immediately linked the circular economy with recycling when, in fact, the issue transcended waste. It was important to recognize that the real challenge was ensuring that a suite of existing products already in the market was usefully employed. Going forward, favourable market and economic conditions must be in place to truly close the loop and achieve multiplicity within biological or technical cycles. The circular economy was merely one helpful element in the discussion. The goal was not to diminish negative impacts such as pollution; the circular economy offered an opportunity to go beyond that and create value. Value creation was a key concept.

25. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) enquired about the creation of university programmes on the circular economy to help raise awareness in civil society.

26. **Mr. de Cuba** (Founder, Circular Economy Platform of the Americas and Circular Economy Forum of the Americas) said that awareness creation regarding those programmes was disorganized and sporadic; a common regional goal must first be defined to avoid the futile propagation of mixed messages to the public. There was an urgent need to reach consensus on the definition of the circular economy if effective, long-term results were to be achieved.

27. **Ms. Lakatos** (President, Ernest Lupan Institute for Research in Circular Economy and Environment), panellist, accompanying her statement with a digital slide presentation, said that the topic of the circular economy was relevant to all United Nations actions. The current model of growth had miraculously elevated millions out of poverty to a prosperous and rewarding life. However, its long-term viability was being questioned. The planet was being destroyed at breath-taking speed and scope, particularly since the end of the Second World War. It was time to rethink the global economic model to drive prosperity within the capacity of the planet and in line with the concept of the circular economy. That concept encompassed a zero waste system and the biosphere, technosphere, and

humanosphere, where all 17 Sustainable Development Goals were relevant to the creation of a regenerative, inclusive system design. The European Systemic Approach for Regions Transitioning towards a Circular Economy focused on the value of products and materials and the minimization of waste generation for long-term social and environmental gains.

28. Departing from that premise, in a joint initiative by the European Commission and the European Economic and Social Committee, the European Circular Economy Stakeholder Platform had been created. Its purpose was to advance the concept of the circular economy among member States and communicate with stakeholders, including businesses, civil society, trade unions, and local governments. It aimed to foster cooperation among stakeholder networks in order to facilitate the exchange of expertise and best practices and identify social, economic and cultural barriers to the transition towards the circular economy. The user-friendly platform was managed by the European Commission and coordinated by its members. It enabled searches for best practices, studies and national strategies, and guests could contribute their own experiences.

29. The work of the Ernest Lupan Institute for Research in Circular Economy and Environment had three focuses: exchanging best practices, fostering dialogue and providing knowledge, and identifying buyers. It had launched two studies on how social enterprises could contribute to a systemic circular economy and an analysis of the behaviour related to branding. At the European level, it had mapped over 150 good practices, most focused on waste management and secondary raw materials. Barriers to the implementation of circular economy measures derived mainly from lack of sufficiency, inadequate legislation and weaknesses in education, including the failure to emphasize circular thinking and behaviour and innovation. No more waste, new jobs, the creation of shared value and the development of a sustainable world: those were the opportunities a circular economy would provide.

30. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) asked Ms. Lakatos to provide examples of good practices, along with guidance on how the public could access the European Circular Economy Stakeholder Platform website to search for them.

31. **Ms. Lakatos** (President, Ernest Lupan Institute for Research in Circular Economy and Environment) said that in steel production, free enthalpy could enable the regeneration of raw materials. In the textile industry, materials could be reused in construction or by protecting them in a different way.

32. It was easy to find good practices on the European Circular Economy Stakeholder Platform website or by emailing. The public could also upload their own good practices, which would be evaluated. If determined to be sound, they would be added to the Platform.

33. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) asked Ms. Lakatos what gave her hope under circumstances that might seem grim.

34. **Ms. Lakatos** (President, Ernest Lupan Institute for Research in Circular Economy and Environment) said that the results of a project in Romania had given her hope. A food bank had been prepared to reuse wasted supermarket food in public schools and for the homeless. However, legislative limits to those uses remained and work must still be done to overcome them.

35. She was also filled with hope when she saw small and medium-sized enterprises approaching her organization for assistance in implementing the circular economy, including a company reclaiming used oil from hotels and restaurants. Technology had advanced to a point where reclamation was possible. Those successes were encouraging in the face of such challenging work.

36. **Mr. Anukam** (Director General, National Environmental Standards and Regulations Enforcement Agency, Nigeria), panellist, accompanying his statement with a digital slide presentation, said that he wished to address the circular economy from the governmental and environmental protection perspective. He had dealt with the issue of waste in those capacities for many years and had noted an interesting paradigm shift around its definition. Years before, one country had insisted that waste should no longer be labelled as such but rather should be called a secondary resource. At one time, plastic had been hailed as the greatest creation of science; now, views about plastic were changing. Certain chemicals had been produced to help humanity; now, it had been acknowledged that some were carcinogenic. The linear economy was now being viewed as a problem when contrasted with the circular economy. The environment was all-encompassing, and any change in its state, positive or negative, would exact a significant influence on ecosystem integrity, including the health and well-being of the living organisms within it. That was a lived reality.

37. The linear economy was causing many problems, including land degradation from quarrying, air pollution from burning waste, water pollution from effluents and waste streams, and homes, industries and cities affected by electronic waste. Seas and oceans were being impacted, all because of growing populations and design problems. Cancer, endocrine system disruptions,

reproductive impairments, children born with brain damage or other effects of neurotoxicity, and the suppression of immune systems, were all the result of the chemicals introduced into the environment because of linear systems of production and consumption.

38. However, tracing the history of the emergence of sustainable development, he said that the first question asked had been how businesses could be sustainable. During the United Nations Conference on Sustainable Development, held in Rio de Janeiro in 2012, the idea of the green economy as the complement to sustainable development had been born after much discussion. The Marrakesh Process had promoted the notion of sustainable consumption and production early on. The focus was now on the circular economy, a cradle-to-cradle approach to improve efficiency of resource use and achieve greater harmony between the economy, environment and society. The old paradigm had been cradle-to-grave.

39. In Nigeria, the Extended Producer Responsibility programme had been established by the National Environmental Standards and Regulations Enforcement Agency to extend the physical and/or financial responsibility of producers to the post-consumer stage of a product's life cycle. The programme promoted the integration of environmental costs associated with goods throughout their life cycle into their market price. It placed a priority focus on end-of-use treatment of consumer products to increase the amount and degree of product recovery and minimize the environmental impact of waste materials. The programme's benefits included its promotion of waste avoidance and effective pollution prevention and reduction; treatment of waste as a resource; wealth creation and promotion of green jobs; improvement of producers' environmental performance; opportunities for innovation, learning and application of global best practices; improvement of environmental quality; and above all, promotion of responsible life cycle product management through the take-back system, recycling and final disposal of waste.

40. Government agencies, producer responsibility organizations, producers, recyclers, collectors, informal collectors and consumers were the key stakeholders in the implementation of the Extended Producer Responsibility programme. The role of the National Environmental Standards and Regulations Enforcement Agency was to enforce extant take-back laws and regulations, establish environmental standards, review and approve stewardship plans, promote the programme, monitor producer responsibility organizations created by the private sector, and promote a level playing field by ensuring the compliance of all stakeholders, national and multinational, with established requirements.

41. The National Alliance on Sustainable Consumption and Production brought together all key government agencies involved in consumption and production and business organizations. Thus far, producer responsibility organizations from the beverage and the electronics sectors had been registered. Other waste streams would be targeted going forward.

42. His agency was working with organizations internationally to promote the process. A proposal was under development in conjunction with the United Nations Environment Programme (UNEP) to support the implementation of the programme in Nigeria.

43. The way forward must include active private sector participation in the Extended Producer Responsibility programme, especially by multinational companies, and discouragement of the use of developing countries as a dumping ground for substandard products and end-of-life waste. Equity dictated that waste from one part of the world could not be dumped in another part of the world that lacked the resources and capacity to contend with that waste. That was not a balanced approach.

44. Global and regional knowledge-sharing platforms, stable global markets for secondary raw materials, and scaled up efforts to implement relevant multilateral environmental agreements would be essential to the promotion of the circular economy. Banned chemicals must not transit either directly or indirectly from one country to another. Eco-industrial parks must be developed and, above all, public awareness must be increased.

45. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) asked whether participating producers had become enthusiastic messengers for the Extended Producer Responsibility programme agenda. He also wondered whether consumers were changing their purchasing practices to support the industries that were participating in the programme.

46. **Mr. Anukam** (Director General, National Environmental Standards and Regulations Enforcement Agency, Nigeria) said that the level of interest and willingness among industry stakeholders had been most encouraging. The producer responsibility organization for the beverage sector had been extremely enthusiastic and had set up its management system and registered as a legal entity with support from the Government. The model was private sector-driven and was functioning independently, with occasional guidance from the

National Environmental Standards and Regulations Enforcement Agency.

47. Consumer awareness had been growing and was dependent on literacy levels and outreach efforts. UNEP had chosen "Beat plastic pollution" as the theme of World Environment Day 2018, which had excited great interest in Nigeria and helped raise awareness. The participation of all stakeholders was key in that effort.

48. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) invited questions from the floor. He noted that the United Nations gift shop did not seem to feature fair trade, organic products. That should be remedied, as the United Nations should exemplify the principles of the circular economy.

49. **Ms. Emet** (Nigeria) said that the size of her country's population, the seventh largest worldwide and the largest in Africa, meant that a great deal of consumption and production took place there. She asked whether the good practices mentioned by Ms. Lakatos could be replicated in a region like Africa, where the population sizes, development landscape, culture, social understanding, educational levels and economic construct were quite different. Her second question, directed to Mr. Anukam, was what pushback or challenges, and what opportunities, he had encountered in his work, whether at the government, policy, legislative or practical level.

50. **Ms. Loe** (Norway) said that she wished to highlight the issue of marine litter, one of the fastest-growing environmental issues. Every minute, 15 tons of litter entered the oceans, with more than 80 per cent originating from land-based sources. Improvements in waste management were urgently needed and should be a key priority. Marine litter crossed borders. For example, a whale had been discovered dead and full of plastic off the Norwegian coast. Collective action must be taken by Governments, industry, civil society, consumers, academia and international organizations like the United Nations to combat it, and industry must be engaged in the production of new forms of plastic that were not simply discarded into the oceans.

51. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) said that the comment by Ms. Loe highlighted the point made by Mr. de Cuba, namely, that recycling was not sufficient to solve those problems and that even recycled plastics and fashion were creating complex problems.

52. **Ms. Elgarf** (Egypt), speaking on behalf of the Group of 77 and China, said that the circular economy was not part of the 2030 Agenda for Sustainable Development, although it was a concept that could accelerate the achievement of the Sustainable Development Goals. Unfortunately, the 2018 high-level political forum had shown that, three years after the adoption of the 2030 Agenda, the current pace of progress towards the achievement of the Sustainable Development Goals was inadequate. Strengthened means of implementation and an enabling global environment, particularly for developing countries, were needed in light of the scale and level of ambition of the 2030 Agenda. That included sustainable financing options, global partnerships and long-term investment. While acknowledging that the 2030 Agenda was indivisible, she underscored the need to step up efforts for the full implementation of the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns, with the developed countries taking the lead. Decoupling economic growth from environmental degradation in accordance with that Framework was an ongoing challenge which would require a profound transformation of business practices and global value chains, especially by large, transnational corporations. It was becoming increasingly important for those corporations to adopt sustainable practices and integrate sustainability information into their reporting cycles.

53. The Group of 77 and China also wished to emphasize the need for enhanced contributions to progressively improve global resource efficiency and consumption and production. Developed countries must take the lead in decoupling economic growth from environmental degradation, while creating decent jobs and economic opportunities and contributing to poverty eradication.

54. She recalled the common determination to protect the planet from degradation, ensuring that people everywhere had the relevant information and awareness for sustainable development lifestyles in harmony with nature. Developing countries needed financial and technical assistance to strengthen financial and technology capacity for more sustainable consumption and production patterns. The Group of 77 and China reaffirmed its constructive engagement with its partners in pursuit of the common aim of achieving sustainable development for all.

55. **Ms. Zeitler** (Observer for the European Union) said that her delegation welcomed the raising of the circular economy for discussion. It was an important issue not only to achieve the objective of decoupling economic growth from environmental degradation, a major challenge highlighted by the ministerial declaration of the 2018 high-level political forum, but also for the implementation of the 2030 Agenda and tackling climate change. A recent study estimated that

circular economy measures could reduce global emissions by 3.6 billion tons per year by 2050. Circular economy measures would further the implementation of both the 2030 Agenda and the Paris Agreement under the United Nations Framework Convention on Climate Change. That was a key point in light of the findings of the Intergovernmental Panel on Climate Change.

56. Decoupling would be a boon to prosperity and economic development while reducing resource needs. According to a study by the International Resource Panel, it was possible to improve resource efficiency, leading to a reduction in extractions while boosting economic activity globally. The European Union wished to demonstrate that achieving prosperity while reducing pressure on the environment was possible. With that in mind, a comprehensive circular economy package had been released in 2015 with a very ambitious programme of action covering the life cycle of products from design, waste management and recycling to the market for secondary raw materials. An important element was the application of the circular economy approach to the plastics sector, a key sector for all economies. The European Strategy for Plastics in a Circular Economy had been released in January 2018 and UNEP had hosted a joint event with the European Commission to launch its Global Plastics Platform. Those events were a testament to the great global awareness of the plastics problem and to the strong commitment in all parts of the world to tackling plastics pollution.

57. The circular economy could only work if implemented at a global level because of closely interlinked global economic supply and value chains. Therefore, the European Union was working very closely with its partners. It had concluded a memorandum of understanding with China for close cooperation on the circular economy and organized the "International Forum on Circular Economy: The Production of the Future" with Latin American partners at a United Nations Industrial Development Organization event in Peru. South Africa had also been collaborating closely with the European Union on the circular economy.

58. The presence of a representative of the European Circular Economy Stakeholder Platform during the joint meeting of the Committee and the Economic and Social Council had been very much appreciated. That Platform was a hub for the development of ideas that could then be shared with stakeholders in other parts of the world, not just within the European Union.

59. In conclusion, she stressed the importance of assistance provided to developing countries at all levels for circular economy projects, such as the European Union SWITCH to Green programme supporting the 10-Year Framework of Programmes on Sustainable Consumption and Production Patterns. Investments were also being promoted through the European Union External Investment Plan to enable circular economy projects to access public funding, and then leverage private financing through that Plan to truly encourage project proposals with a circular economy component. There was great growth potential for innovative companies, from both developed and developing countries; more direct business-to-business dialogues must be fostered between them. The European Union regularly organized such events with various partners all over the world.

60. **Ms. El Hilali** (Morocco) said that the Sustainable Development Goals could not be implemented under the current linear economy model. Convinced that the transition to the circular economy was imperative, Morocco had adopted a proactive approach. In 2016, it had begun prohibiting the import, export, marketing and use of plastic bags for packaging. The Government was also subsidizing companies whose activities were directly concerned by plastic production to ease the transition to more sustainable processes.

61. The 2030 Agenda provided a comprehensive framework for achieving that transition, and the 2019 high-level political forum would focus on goals that would be advanced by the substantive advantages of the circular economy model. In her delegation's view, municipalities and local authorities were particularly relevant. Some had already included that approach in their business models and local governance. However, to succeed, a sociological change in consumerism was required. Traditional production schemes had been very circular and inclusive by nature; artisanal handmade crafts, foods and ornaments were all examples of ancestral cultural heritage, and yet were very sustainable, circular and eco-friendly. It was time for a return to such activities. The circular economy could only be a concrete tool to achieve the 2030 Agenda if individuals and smaller communities were fully involved and sensitized to the process.

62. In conclusion, she said that while Governments could help design platforms and policies in harmony with the 2030 Agenda, the private sector and small and medium-sized enterprises were key players in product design and the shift to the circular economy. Their empowerment and that of youth would spur investment in those models. Education, research and vocational training would be the starting points.

63. Companies taking innovative action to implement circular economy initiatives should have access to credit

on preferential terms. Morocco was active in that regard and had much to learn from other countries, especially those in the global South, which were championing those models.

64. **Ms. Lakatos** (President, Ernest Lupan Institute for Research in Circular Economy and Environment) said that some of the best practices to which she had referred could be applied on a small scale in Africa. Nevertheless, owing to their elevated cost, applying them might prove difficult in some countries.

65. **Mr. Anukam** (Director General, National Environmental Standards and Regulations Enforcement Agency, Nigeria) said that more needed to be done to raise the awareness of producers and consumers. Large companies should lead by example but some had shown little inclination to do so thus far. It was encouraging, however, to see that emerging businesses were interested in environmental protection and that the idea of the circular economy was attracting attention.

66. **Mr. de Cuba** (Founder, Circular Economy Platform of the Americas and Circular Economy Forum of the Americas) urged a shift in thinking from resource efficiency to resource effectiveness. Instead of making a plastic bottle thinner, perhaps the way in which goods were packaged should be rethought. Until the United Nations settled on a common definition of the circular economy, efforts to promote it would remain piecemeal.

Panel Discussion on Theme 2: "Partnerships for implementation of the circular economy"

67. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance), moderator, invited the panellists to make their presentations.

68. **Mr. Lemmens** (Global Director and Global Advisory Services Leader, Arup), panellist, accompanying his statement with a digital slide presentation, said that the concept of the circular economy could become a lasting paradigm for a restorative, industrial economy. The challenge was to unlock that potential in tangible applications. Arup was a pioneering global company committed to adapting the building industry to the precepts of the circular economy in four key areas: cities, energy, transport and water.

69. It was estimated that nearly 70 per cent of the world's population would be living in cities by 2050. Making them sustainable required completely rethinking urban living. Simply recycling was not enough. Arup was designing new cities and greenfield developments as circular loops in which the waste produced in one location could then be used elsewhere. Some 40 per cent of waste was generated by the construction industry, which was fragmented and required urgent structural change, including integrated supply chains and joint approaches based on shared gains and incentives. Integrating once separate systems would reduce the consumption of resources.

70. Given the scale and complexity of the endeavour, transformation to a truly circular economy would take generations. Many hurdles stood in the way of that transformation in the developed and developing world. Circular economy solutions had to become more affordable for business, and regulations would have to be put in place to create push and pull mechanisms. Industry players must be mobilized and partnerships set up across the public and private sectors. The circular economy was a mindset; it was about rethinking everything that people did. The mantra of "take, make and dispose" must be abandoned. In that respect, the memorandum of understanding on circular economy cooperation signed recently by China and the European Union was an encouraging sign.

71. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) said that it would be interesting to know what Arup asked of its developers and project managers and what was being done to bring the company's initiatives to the attention of the public. He cited cases of corporations doing inspiring work on sustainable development that went unnoticed by consumers of their products. The failure to publicize the work directly among their customers was a lost opportunity to raise awareness.

72. **Mr. Lemmens** (Global Director and Global Advisory Services Leader, Arup) said that all parties in the supply chain were encouraged to think about the process of developing a city or asset as a whole. One question could be how to construct a building that 30 years later would leave no resource footprint. The steel industry provided another example: although 90 per cent of steel was recycled, the total amount produced continued to increase. Rare elements contained in the steel were irretrievably lost in the process. The point was to avoid that loss. Perhaps the answer lay in producing lower quality steel with smarter technology.

73. **Ms. Daly** (Executive Director, Center for the Circular Economy, Closed Loop Partners), panellist, accompanying her statement with a digital slide presentation, said that partnerships across industries, cities and countries were critical for economic transformation. The current period of exponential change in the way people worked, lived and communicated presented challenges and an opportunity to address the most dysfunctional aspects of the linear economic system and disrupt "business as usual" with

innovative approaches. Rapid population growth, increasing resource constraints and urbanization made it urgent to rethink the current "take, make, waste" system. Traditional growth models had been outstripped by the pace of growth and technological change. Billions of dollars were spent on landfill sites for waste that was itself worth billions of dollars.

74. In the United States of America, the transition to the circular economy would be driven by the private sector rather than national regulation. Businesses and investors were beginning to recognize the need to take into account external factors in their risk analysis, such as supply chain disruption, a shift from ownership to leasing and the resulting impact on sales and the effects of regional policymaking. An example of the latter was the proposal in the European Union to ban single-use plastics and require producers to bear some of the cost of waste management. Such trends were giving rise to new business models.

75. In the United States, greater public awareness of the fact that waste did not simply disappear was needed to generate consumer and electoral support for the transition to the circular economy. That was especially so in the absence of national regulations or funding. Positive signs included greater shareholder activism on issues such as single-use plastics, growing consumer interest in innovative models for borrowing rather than owning, and increased focus on sustainability in sectors such as the fashion industry.

76. An equitable and inclusive economy could be envisaged, in which circular business approaches created new high- and low-technology jobs. The new economy would require precompetitive collaboration between businesses that could create value which outweighed risks. For products and materials to retain their value at every stage of their life cycle, they must be aligned within infrastructure built to manage their recovery and reuse. For example, when businesses worked together to ensure access to post-consumer feedstock, they could capture value for their own brand while fostering change in systems throughout the value chain.

77. The infrastructure required stable flows of materials and profitable market demand. The increased scale resulting from a unified flow of materials would drive down costs and thereby increase the profitability of precompetitive partnerships. Joint investment by major consumer brands in circular solutions would leave each of them better placed to achieve their individual goals. Cities and states also stood to benefit, as the "take, make, waste" system cost them dearly.

78. Increasingly, goods such as furniture, which in the past had been seen as durable, were regarded as disposable. The authorities of New York City spent $60 million a year sending textiles, most of which were still useable, to landfill sites. Indeed, articles of clothing were worn, on average, only seven times before being discarded. Novel approaches to textile reuse and advanced chemical recycling could generate profits rather than costs to the taxpayer. One answer to social media pressure on young people not to wear the same articles of clothing twice was to share or rent apparel.

79. Such innovative business models and new technology represented investment opportunities. By taking full advantage of currently untapped resources, systems could be changed without sacrificing economic gain.

80. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) noted that the city of San Francisco had a landfill-diversion rate of between 80 and 85 per cent and asked what impact the decision by China to ban the import of waste had had on the United States.

81. **Ms. Daly** (Executive Director, Center for the Circular Economy, Closed Loop Partners) said that the ban would stimulate innovation. Many companies in the United States were already using cutting edge technology for clean recycling and they would benefit from the ban. Others would have to catch up. Aside from hefty investment in such facilities and more consumer education, municipalities must raise standards on the collection of recyclable material.

82. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) said that, where possible, consumers should opt for organic fair-trade goods.

83. **Ms. Bajaj** (Advisor, Federation of Indian Chambers of Commerce and Industry), panellist, accompanying her statement with a digital slide presentation, said that people in India frequently asserted that the economy in that country had always been circular. Others feared the complexity of the issue and the potentially high cost of investment in infrastructure that the circular economy would entail. The Federation was working to spread awareness of the concept and, from 2019, it planned to present awards to companies adopting circular models. By some calculations, moving to a circular economy could add $40 billion to the Indian economy by 2050. That potential for generating wealth was attractive to business. Indeed, the aim of the circular economy was to generate wealth without waste. No one wished to return to an austere way of life. For broad awareness-

raising on the circular economy to be successful, the language employed to describe it must be free of jargon.

84. The circular economy was viewed in a variety of ways. For some, it meant restoring and regenerating natural capital, while for others the emphasis was on efficiency and reduced pressure on virgin resources. In India, the lack of waste disposal infrastructure posed particular challenges. In the traditional economy, recycling had been the norm, but the use of plastics had led to the generation of enormous quantities of waste. Where waste was unavoidable even in the circular economy, efforts should be concentrated on ensuring that it was not harmful. Western countries currently led the way in terms of best practices but the Federation's priority was to identify suitable models for India. By studying value chains from a business perspective and the life cycle of products through the production, consumption and disposal stages, it was possible to identify key areas requiring change and possible solutions, the trade-offs of which must be weighed up carefully.

85. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) noted the ethos of living simply that prevailed in Amish and Mennonite communities in the United States and emphasized the importance of avoiding the use of jargon in campaigns to raise awareness about the circular economy among policymakers and the general public. He also asked how businesses in India were being encouraged to move to the circular economy.

86. **Ms. Bajaj** (Advisor, Federation of Indian Chambers of Commerce and Industry) said that the Federation conveyed the concept to companies through seminars and conferences. For instance, construction companies were being encouraged to view new buildings simultaneously as a means of storing building materials for reuse in the future. In the long term, awareness of the concept should be spread through the education system. Given the costs involved, the transition to the circular economy would take time.

87. **Mr. Terva** (Finland) asked whether efforts to move towards a circular economy should be consumer-driven or rely on government regulation.

88. **Mr. Engels** (Netherlands), noting that approaches to waste disposal in Western countries were unsustainable, said that he would like to know more about how partnerships between developed and developing countries might contribute to the transition to a circular economy. He also asked what role the United Nations might play in that regard.

89. **Ms. Emet** (Nigeria) said that developing countries could not deal with waste disposal in the way developed countries did. Quality standards for the production of consumer goods ought to be standardized throughout the world. The difficulty, however, lay in how to enforce such standards in developing countries.

90. **Mr. Varganov** (Russian Federation) agreed that moving to a circular economy was imperative for achieving the Sustainable Development Goals and said that a project had been launched in his country to clear up waste. An electronic environmental control system was being developed to prevent the creation of illegal city dumps. Many businesses had also begun to introduce the latest technology to improve their production methods. Changes in legislation meant that producers were increasingly being held responsible for recycling packaging and obsolete goods. In a similar vein, consumers would have to collect packaging and related materials for recycling. Partial refunds to consumers for the return of such materials would provide an incentive. While the Russian Federation supported the ongoing dialogue on the circular economy in forums such as the European Union, it was important to bear in mind the level of development of individual countries and their socioeconomic capacity to make such a transition.

91. **Mr. Lu** Yuhui (China), noting that the technology required for production in the circular economy was costly, said that China had nonetheless adopted regulations in line with the concept in 2008. The idea of green development was crucial. China recycled its own waste but did not have the capacity to deal with that of other countries. The decision by his Government to ban the import of waste was a key environmental measure. Ways must be found to stop the export by some countries of solid waste to developing countries which could not process it.

92. **Mr. Sinha** (India), noting the merits of traditional, and thus sustainable, ways of life, said that single-use plastics would be banned in his country by 2022. The authorities were also working to remove plastic from the sea along its 7,500 km coastline. The apparent need for high technology to bring about the circular economy raised the critical question of technology transfer to countries unable to make the transition on their own.

93. **Ms. Bajaj** (Advisor, Federation of Indian Chambers of Commerce and Industry) said that a lack of public awareness made a consumer-driven transition to the circular economy unlikely in countries like India. With regard to the export and smuggling of waste, there was a need for caution in seeing the circular economy merely as a means of prolonging the usable life of

products by shunting them from wealthier to poorer countries. Such an approach could lead to the poorest countries becoming the dumping grounds for the world's waste.

94. **Mr. Lemmers** (Global Director and Global Advisory Services Leader, Arup) said that the language used to promote the circular economy should be tailored to different audiences. Young people were more concerned about mobility than car ownership. In developing countries where building materials were scarce, for instance, a positive case could be made for employing non-traditional materials. Today, housing could be built using natural fibres and even resins. Framing the arguments in favour of the circular economy positively would lead consumers to buy its products. In addition to encouraging business-to-business dialogue, there was a need to settle on suitable language for business-to-consumer dialogue. In addition to competition, mutually beneficial collaboration in business should be encouraged. Government had an important role to play in that respect. The possibilities afforded by open source technology management should also be examined. At the international level, China and the European Union had much to learn from one another. In short, finding incentives for all stakeholders would power the transition to the circular economy.

95. **Ms. Daly** (Executive Director, Center for the Circular Economy, Closed Loop Partners) said that the question of how to promote the circular economy was not simply a matter of government regulation or consumer education. As it was, consumers were unaware of the true price of certain goods. The cost of landfill sites, for instance, should be factored in and shared between producers and consumers. Only a small percentage of items donated to stores selling second-hand clothes was sold. The bulk ended up in landfill sites or was shipped abroad, which on occasion had an unintended adverse impact on local fabric producers in developing countries.

96. **Mr. Shank** (Communications Director, Carbon Neutral Cities Alliance) suggested that all the participants in the current meeting might wish to examine changes they could make in their daily lives and consumption patterns.

Conclusion of the joint meeting

Closing remarks

97. **Mr. Akmad** (Director a.i., United Nations Environment Programme (UNEP), New York Office) said that natural resources were currently being consumed at thrice the rate of consumption in the 1970s. Moreover, more than half of those resources ended up as waste and emissions, while only 10 per cent was recycled. He agreed that it might be advantageous to establish a common definition of the circular economy. However, with the integration of the social, economic and environmental dimensions of sustainable development in the 2030 Agenda, a new universal architecture was already being put in place. Some sectors were showing the way: in the construction industry in Kenya, for example, all material recovered after the demolition of buildings was reused.

98. Creating the conditions conducive to the circular economy would require policy action at the global, regional and national levels. Its adoption in one country would affect others and have an impact on the entire value chain, by opening international markets for resource-efficient goods and services, facilitating processing, encouraging more efficient recycling and driving foreign investment and innovation. Sustainable Development Goal 12 was especially pertinent to the concept of the circular economy. The complexity of that transition could also be addressed by effectively implementing international agreements that were already in place. Partnerships would be equally critical for the move to a green economy.

99. **Mr. Liu** Zhenmin (Under-Secretary-General for Economic and Social Affairs) said that a global shift to the circular economy could accelerate the achievement of the Sustainable Development Goals. Care should be exercised in determining the mix of government-, consumer- and private sector-driven approaches to attain the ecological benefits and cost savings expected. The kind of initiatives examined during the panel discussions needed to be scaled up for maximum impact. A shift in thinking away from the linear economy was taking place not only in the private sector, but also increasingly in government, civil society and academic circles.

100. Discussion of the circular economy could not be more opportune. The combination of population growth, rapid urbanization and economic development would increase the global generation of waste by 70 per cent in the coming 30 years. More than 2 billion tons a year of municipal solid waste were now being produced. That figure was projected to rise to 3.4 billion tons by 2050. Action to halt that trend was required urgently. Innovation and technology must be harnessed to guide change, which could only be realized through partnership between all sectors.

Closing statements

101. **Ms. King** (Co-Chair) said that successfully moving to the circular economy would require a change

in global mindsets; it must be seen that a healthy environment was also a source of growth, jobs and a chance to develop new skills. The potential benefits were increasingly being recognized around the world. She pledged personally to live more simply, to use and reuse.

102. **Mr. Skinner-Klée Arenales** (Co-Chair) seconded the pledge made by Ms. King, saying that the panel discussions had provided much food for thought. The harsh reality was that, in a globalized world, everyone should use less and reuse everything. Every human activity had a contaminating effect. In the face of rapid population and urban growth, humanity must learn to conserve natural resources and live more modestly. Human ingenuity and innovation, complemented by collaboration between industries, countries and regions, would be essential to meeting the challenges that lay ahead. That meant not pandering to vested interests. Subsidies, especially in farming, led to market distortions, inefficiency and enormous waste. The most sensitive organ of the human body appeared still to be the pocket. That had to change.

The meeting rose at 6.15 p.m.